JIE SHEN
Associate Professor
Northeastern University
146, 140 The Fenway
Boston, MA 02115
617-373-5981
jie.shen@northeastern.edu

EDUCATION

M.S. & Ph.D. in Pharmaceutics	China Pharmaceutical University, Nanjing, China
B.S. in Pharmaceutical Sciences	China Pharmaceutical University, Nanjing, China

PROFESSIONAL POSITIONS

08/2023 - present	Associate Professor (tenured)	Northeastern University, Boston, MA Department of Pharmaceutical Sciences, School of Pharmacy and Pharmaceutical Sciences, Bouvé College of Health Sciences
09/2023 - present	Adjunct Associate Professor	University of Rhode Island (URI), Kingston, RI Department of Biomedical and Pharmaceutical Sciences (BPS)
07/2022 – 08/2023	Associate Professor (tenured)	URI, Kingston, RI Departments of BPS/CHE (joint appointment)
10/2016 – 06/2022	Assistant Professor	URI, Kingston, RI Departments of BPS/CHE (joint appointment)
06/2014 – 10/2016	Assistant Research Professor	University of Connecticut (UConn), Storrs, CT Department of Pharmaceutical Sciences
02/2010 – 06/2014	Postdoctoral Fellow	UConn, Storrs, CT Department of Pharmaceutical Sciences Mentor: Professor. Diane J. Burgess
09/2009 – 02/2010	Postdoctoral Fellow	Fudan University, Shanghai, China School of Pharmacy, Key Laboratory of Smart Drug Delivery (Ministry of Education) Mentor: Professor Weiyue Lu
07/2001 – 08/2003	Assistant Engineer	Yunnan Baiyao Group Co., Ltd., P.R. China

HONORS AND AWARDS

2020	NIDA (National Institute on Drug Abuse), "Start a Substance Use Disorders (SUD) Startup 2020 Spring Challenge" Winner (Team leader: Murphy)
2017	IPEC (International Pharmaceutical Excipients Council)-Americas Emerging Researcher Award
2014	AAPS (American Association of Pharmaceutical Scientists) Outstanding Postdoctoral Fellow Award
2011	Elsevier Top Reviewer of the Year in Pharmaceutical Sciences

LEADERSHIP POSITIONS

2024 - present	Immediate Past Chair	Controlled Release Society (CRS) Diversified Products: Delivery Beyond Pharma (C&DP) Division
2023 - 2024	Chair	CRS C&DP Division
2023 - 2024	Past Chair	AAPS In Vitro Release and Dissolution Testing Community
2022 - 2023	Chair	AAPS In Vitro Release and Dissolution Testing Community
2022 - 2023	Chair	URI College of Pharmacy (COP) Diversity and Globalization committee
2022 - 2023	Track Coordinator	URI COP Graduate Program Pharmaceutics/Pharmacokinetics track
2017 - 2023	Faculty Advisor	AAPS-URI Student Chapter

2022 Delegate American Association of Colleges of Pharmacy (AACP) House

RESEARCH SUPPORT

Current Support

Health and Human Services (HHS)/Food and Drug Administration (FDA) 09/01/2023 - 08/30/2025
(1U01FD007959)
PI; $450,000; U01
"Evaluation of Oral Modified-Release Tablets to Support the Approval of Additional Strengths"

HHS/FDA (1U01FD007656) 09/15/2022 - 08/31/2026
PI; $1,000,000; U01
"*In Vitro* Based Approaches to Evaluate the Bioequivalence of Locally-Acting Rectal and Vaginal Semi-Solid Drug Products"

Completed Support

National Institutes of Health (NIH)/NIGMS (P20GM103430) 05/01/2023 - 04/30/2024
Subproject Mentor (Subproject PI: Poling-Skutvik), RI IDeA Network for Biomedical Research Excellence (RI-INBRE) Early Career Development Award
"Hydrogels with improved biomimicry to screen in vitro transport of nanoparticle vectors"

The Champlin Foundation 01/01/2023 - 12/31/2023
PI (with Co-PIs Meenach, Allababidi, Roxbury, Quinlan, Ross, Kim); $95,000
Equipment Grant "Advanced Drug Release Testing Technologies for Hands-on Training"

URI Global 01/31/2020 - 10/20/2023
PI; $2,685; URI/TU Braunschweig (TUBS, Germany) Presidential match funds
"Initiating a New Cooperation in Pharmacy/Pharmaceutical Engineering"

SUNOVION Pharmaceuticals 02/28/2022 - 12/31/2022
PI; $11,403; Industrial Research Agreement

SUNOVION Pharmaceuticals 03/01/2021 - 09/29/2022
PI; $30,034; Industrial Research Agreement

HHS/FDA (1U01FD006721) 09/01/2019 - 08/30/2022
PI; $500,000; U01
"Bioequivalence Considerations of Topical Rectal and Vaginal Drug Products"

URI Division of Research and Economic Development 07/01/2021 - 06/30/2022
PI; $17,965; Project Development Grant
"Novel Immunochemotherapy Against Glioblastoma"

NIH/NIGMS (P20GM103430) 05/01/2021 - 04/30/2022
PI; $5,000; RI-INBRE Enhanced Virtual Education, Research and Training (EVEREST) Pilot Award
"3D Game-Based Nanotechnology Lab as an Enhanced Education/Training Pedagogy"

Lyndra Pharmaceuticals 06/01/2021 - 12/31/2021
PI; $30,266.3; Industrial Research Agreement

The Champlin Foundation 01/01/2021 - 12/31/2021
Co-PI (with PI Menon and co-PIs Bothun, Chen, Dwyer, and Roxbury); $185,000
Equipment Grant "Growing New Organ Tissue"

Rhode Island Foundation 04/01/2019 - 08/31/2021
PI; $25,000; Medical Research Grant
"A Bioinspired *In Situ* Delivery Platform with Tunable Drug Release for Improved Cancer Therapy"

HHS/FDA (5U01FD005773-03, subcontract from UConn) 09/01/2019 - 04/30/2021
PI (subcontract); $291,627 (subcontract only, total $1,518,847); U01
"A Continuous Manufacturing Platform for Complex Dosage Forms"

Odan Laboratories 06/19/2018 - 06/14/2020
PI; $66,289; Industrial Research Agreement

IPEC-Americas 12/01/2017 - 11/30/2019
PI; $15,000; Emerging Researcher Award
"Effect of Excipients on Solubilization and Taste-Masking of Orodispersible Pediatric Formulations"

The Champlin Foundation 11/19/2018 - 12/31/2019
PI (with co-PIs Allababidi, Chen, Meenach and Chichester); $146,900
Equipment Grant "Production and Assessment of Topical Health Care Products"

NIH/NIGMS (P20GM103430) 05/01/2017 - 04/30/2019
Subproject PI (PI: Shaikh/Cho); $149,874 (subproject only); RI-INBRE Early Career Development Award
"Sustained Intravitreal Drug Delivery Platform for the Treatment of Uveal Melanoma"

URI Institute for Integrated Health and Innovation 2017
Co-PI (with PI Kennedy); $10,000; Big Ideas in Health Initiative
"Establishment of a Smart Therapy Research Center"

PUBLICATIONS

Book Chapters

1. **J. Shen**, D.J. Burgess. Drugs for Long-Acting Injections and Implants. In "Long-Acting Injections and Implants". Eds. J. Wright and D.J. Burgess. *CRS Press, Springer*, 2012: 73-91.

Peer-Reviewed Articles (#as corresponding author, * equal authorship)

1. J. Song, Z. Xu, L.X., Xie#, **J. Shen**#. Recent advances on studying in vitro drug permeation across mucosal membranes. *Pharmaceutics*. 2024 (under review)
2. Y. Suita, S. Miriyala, D. Merih-Toruner, W.Z. Yue, L.X, Xie, B. Akobundu, N. Perch, A. Fiser, E. Fajardo, **Jie Shen**, Nikos Tapinos. Engineering GliaTrap: a biodegradable non-swelling hydrogel with tuned release of CXCL12 to attract migrating glioblastoma cells. *Scientific Reports*. 2024 (under review)
3. M.T. Freeman, **J. Shen**, S.A. Meenach. An aerosol nanocomposite microparticle formulation using rifampicin-cyclodextrin inclusion complexes for the treatment of pulmonary diseases. *International Journal of Pharmaceutics*. 2024, 665:124755. PMID: 39321902. https://doi.org/10.1016/j.ijpharm.2024.124755
4. W.Z. Yue, T.Q. Wang, L.X, Xie, **J. Shen**#. An injectable in situ hydrogel platform for sustained drug release against glioblastoma. *Journal of Drug Delivery Science and Technology*. 2024, 95: 105527. https://doi.org/10.1016/j.jddst.2024.105527
5. W.Z. Yue, **J. Shen**#. Local delivery strategies of peptide and protein therapeutics to CNS. *Pharmaceuticals* 2023, 16(6), 810. ***(Editorial Cover Story)*** PMID: 37375758. https://doi.org/10.3390/ph16060810.
6. X.L. Liu, Y.J. Chen, Y. Fu, D.X. Jiang, F.Y. Gao, Z.J. Tang, X.F. Bian, S. Wu, Y. Yang, X.Y. Wang, **J. Shen**, C. Li#. Breaking spatiotemporal barriers of immunogenic chemotherapy via an endoplasmic reticulum membrane-assisted intrinsic onco-immunogenic strategy. *ACS Nano*, 2023, 17(11):10521-10534. PMID: 37207349. 10.1021/acsnano.3c01446
7. C.L. Hemme, R. Carley, A. Norton, M. Ghumman, H. Nguyen, R. Ivone, J.U. Menon, **J. Shen**, M. Bertin, R. King, E. Leibovitz, R. Bergstrom, B. Cho. Developing virtual and augmented reality applications for science, technology, engineering and math education. *BioTechniques*. 2023, 75(1): 343-52. PMID: 37291856. https://doi.org/10.2144/btn-2023-0029
8. R.D. Kirk, T. Akanji, H.F. Li, **J. Shen**, S. Allababidi, N.P. Seeram, M.J. Bertin, H. Ma. Evaluations of skin permeability of cannabidiol and its topical formulations by skin membrane-based parallel artificial membrane permeability assay and franz cell diffusion assay. *Med Cannabis Cannabinoids.* 2022 Oct 10;5(1):129-137. PMID: 36467778. 10.1159/000526769
9. K. Perera*, R. Ivone*, E. Natekin, C. Wilga#, **J. Shen**#, J. Menon#. 3D bioprinted implants for cartilage repair in intervertebral discs and knee menisci. *Frontiers in Bioengineering and Biotechnology*. 2021, 9:754113**.** PMID: 34746106. 10.3389/fbioe.2021.754113

10. R. Ivone, Y. Yang[#], **J. Shen**[#]. Recent advances in 3D-printing for parenteral applications. *AAPS Journal*. 2021, 23(4): 87. *Special Theme "Celebrating Women in the Pharmaceutical Sciences*." PMID: 34145513. 10.1208/s12248-021-00610-z
11. L.X. Xie, W.Z. Yue, K. Ibrahim, **J. Shen**[#]. Long-acting curcumin nanoparticle/*in situ* hydrogel composite for the treatment of uveal melanoma. *Pharmaceutics*. 2021, 13(9): 1335. PMID: 34575410. 10.3390/pharmaceutics13091335
12. R. Ivone, A. Fernando, B. DeBoef, S. Meenach[#], **J. Shen**[#]. Development of spray-dried cyclodextrin-based pediatric anti-HIV formulations. *AAPS PharmSciTech*. 2021, 22(5): 193. PMID: 34184163. 10.1208/s12249-021-02068-w
13. T.Q. Wang, Y. Suita, S. Miriyala, J. Dean, N. Tapinos[#], **J. Shen**[#]. Advances in lipid-based nanoparticles for cancer chemoimmunotherapy. *Pharmaceutics*. 2021, 13(4): 520. PMID: 33918635. 10.3390/pharmaceutics13040520
14. Y.P. Deng, L. Shen, Y. Yang, **J. Shen**[#]. Development of nanoparticle-based orodispersible palatable pediatric formulations. *International Journal of Pharmaceutics*. 2021, 596: 120206. PMID: 33493595. 10.1016/j.ijpharm.2021.120206
15. Y. Yang, X.Y. Wang, X. Lin, L.X. Xie, R. Ivone, **J. Shen**[#], G.S. Yang[#]. A tunable extruded 3D printing platform using thermo-sensitive pastes. *International Journal of Pharmaceutics*. 2020, 583: 119360. PMID: 32335080. 10.1016/j.ijpharm.2020.119360
16. T.T. Li, Q.Y. Bao, **J. Shen**, R.V. Lalla, D.J. Burgess. Mucoadhesive in situ forming gel for oral mucositis pain control. *International Journal of Pharmaceutics*. 2020, 580: 119238. PMID: 32194210. 10.1016/j.ijpharm.2020.119238
17. N. Tipnis, **J. Shen**, D. Jackson, D. Leblanc, D.J. Burgess. Flow-through cell-based *in vitro* release method for triamcinolone acetonide poly(lactic-co-glycolic acid) microspheres. *International Journal of Pharmaceutics*. 2020, 579:119130. PMID: 32070759. 10.1016/j.ijpharm.2020.119130
18. L.X. Xie, Y. Yang, **J. Shen**[#]. Efficient inhibition of uveal melanoma *via* ternary siRNA complexes. *International Journal of Pharmaceutics*. 2020, 573: 118894. PMID: 31765784. 10.1016/j.ijpharm.2019.118894
19. N. Shah, R. Ivone, **J. Shen**, S.A. Meenach[#]. Comparison of nanoparticle purification process via centrifugation and tangential flow filtration: a case study on acetalated dextran nanoparticles. *Particuology*, 2020, 50: 189. 10.1016/j.partic.2019.06.004
20. J.V. Andhariya, R. Jog, **J. Shen**, S. Choi, Y. Wang, Y. Zou, D.J. Burgess. *In vitro-in vivo* correlation of parenteral PLGA microspheres: effect of variable burst release. *Journal of Controlled Release*. 2019, 314: 25-37. PMID: 31654687. 10.1016/j.jconrel.2019.10.014
21. J.V. Andhariya, R. Jog, **J. Shen**, S. Choi, Y. Wang, Y. Zou, D.J. Burgess. Development of Level A *in vitro-in vivo* correlations for peptide loaded PLGA microspheres. *Journal of Controlled Release*. 2019, 308: 1-13. PMID: 31301338. 10.1016/j.jconrel.2019.07.013
22. J.V. Andhariya, **J. Shen**, Y. Wang, S. Choi, D.J. Burgess. Effect of minor manufacturing changes on stability of compositionally equivalent PLGA microspheres. *International Journal of Pharmaceutics*. 2019, 566: 532-40. PMID: 31181309. 10.1016/j.ijpharm.2019.06.014
23. Y. Yang, N. Zheng, X.Y. Wang, R. Ivone, W.G. Shan[#], **J. Shen**[#]. Rapid preparation of spherical granules *via* the melt atomization technique. *Pharmaceutics*. 2019, 11(5): 198. PMID: 31052257. 10.3390/pharmaceutics11050198
24. Y. Yang, H. Li, Y. Xu, Y.C. Dong, W.G. Shan[#], **J. Shen**[#]. Fabrication and evaluation of dental fillers using customized molds *via* 3D printing technology. *International Journal of Pharmaceutics*. 2019, 563: 66-75. PMID: 30878588. 10.1016/j.ijpharm.2019.03.024
25. Y. Yang, N. Zheng, H.C. Li, W.G. Shan[#], **J. Shen**[#]. Mechanistic study on rapid fabrication of fibrous films *via* centrifugal melt spinning. *International Journal of Pharmaceutics*. 2019, 560: 155-65. PMID: 30769130. 10.1016/j.ijpharm.2019.02.005
26. **J. Shen**[#], D.J. Burgess. Advances in drug delivery related biosensors and medical devices. *International Journal of Pharmaceutics*. 2018, 544(2): 307-8 (Editorial Story).
27. Z. Li, J. Xie, S. Peng, S. Liu, Y. Wang, W.Y. Lu, **J. Shen**, C. Li. Novel strategy utilizing extracellular cysteine-rich domain of membrane receptor for constructing D-peptide mediated targeted drug delivery

systems: a case study on Fn14. *Bioconjugate Chemistry*. 2017, 28(8): 2167-79. PMID: 28715634. 10.1021/acs.bioconjchem.7b00326

28. J.V. Andhariya, S. Choi, Y. Wang, Y. Zou, D.J. Burgess, **J. Shen**[#]. Accelerated *in vitro* release testing method for naltrexone loaded PLGA microspheres. *International Journal of Pharmaceutics*. 2017, 520(1-2): 79-85. PMID: 28153651. 10.1016/j.ijpharm.2017.01.050
29. Q. Bao, **J. Shen**, R. Jog, C. Zhang, B. Newman, Y. Wang, S. Choi, D.J. Burgess. *In vitro* release testing method development for ophthalmic ointments. *International Journal of Pharmaceutics*. 2017, 526(1-2): 145-56. PMID: 28461266. 10.1016/j.ijpharm.2017.04.075
30. J.V. Andhariya, **J. Shen**, S. Choi, Y. Wang, Y. Zou, D.J. Burgess. Development of *in vitro-in vivo* correlation of parenteral naltrexone loaded polymeric microspheres. *Journal of Controlled Release*. 2017, 255: 27-35. PMID: 28385676. 10.1016/j.jconrel.2017.03.396
31. Q. Bao, R. Jog, **J. Shen**, B. Newman, Y. Wang, S. Choi, D.J. Burgess. Physicochemical attributes and dissolution testing of ophthalmic ointments. *International Journal of Pharmaceutics*. 2017, 523(1): 310-9. PMID: 28344172. 10.1016/j.ijpharm.2017.03.039
32. M.S. Suh, **J. Shen**, L. Kuhn, D.J. Burgess. Layer-by-layer nanoparticle platform for cancer active targeting. *International Journal of Pharmaceutics.* 2017, 517(1-2): 58-66. PMID: 27923697. 10.1016/j.ijpharm.2016.12.006
33. R. Jog, S. Kumar, **J. Shen**, N. Jugade, D.C. Tan, R. Gokhale, D.J. Burgess. Formulation design and evaluation of amorphous ABT-102 nanoparticles. *International Journal of Pharmaceutics*. 2016, 498(1-2): 153-69. PMID: 26705150. 10.1016/j.ijpharm.2015.12.033
34. **J. Shen**, K. Lee, S. Choi, W. Qu, Y. Wang, D.J. Burgess. A reproducible accelerated *in vitro* release testing method for PLGA microspheres. *International Journal of Pharmaceutics*. 2016, 498(1-2): 274-82. PMID: 26705156. 10.1016/j.ijpharm.2015.12.031
35. **J. Shen**, S. Choi, W. Qu, Y. Wang, D.J. Burgess. *In vitro-in vivo* correlation of parenteral risperidone polymeric microspheres. *Journal of Controlled Release*. 2015, 218: 1-12. ***(Selected as the Editorial Cover Story and Cover Page)*** PMID: 26423236. 10.1016/j.jconrel.2015.09.051
36. **J. Shen**, D.J. Burgess. *In vitro-in vivo* correlation for complex non-oral drug products: where do we stand? *Journal of Controlled Release*. 2015, 219: 644-51. PMID: 26419305. 10.1016/j.jconrel.2015.09.052
37. S. Kumar, **J. Shen**, B. Zolnik, N. Sadrieh, D.J. Burgess. Optimization and dissolution performance of spray-dried naproxen nano-crystals. *International Journal of Pharmaceutics.* 2015, 486(1-2): 159-66. PMID: 25814034**.** 10.1016/j.ijpharm.2015.03.047
38. S. Kumar, R. Jog, **J. Shen**, B. Zolnik, N. Sadrieh, D.J. Burgess. Formulation and performance of danazol nano-crystalline suspensions and spray dried powders. *Pharmaceutical Research*. 2015, 32(5): 1694-1703. PMID: 25385690. 10.1007/s11095-014-1567-0
39. S. Kumar, R. Jog, **J. Shen**, B. Zolnik, N. Sadrieh, D.J. Burgess. *In vitro* and *in vivo* performance of different sized spray-dried crystalline itraconazole. *Journal of Pharmaceutical Sciences*. 2015, 104(9): 3018-28. PMID: 25195539. 10.1002/jps.24155
40. S. Kumar, **J. Shen**, D.J. Burgess. Nano-amorphous spray dried powder to improve oral bioavailability of itraconazole. *Journal of Controlled Release*. 2014, 192C: 95-102. PMID: 25009979. 10.1016/j.jconrel.2014.06.059
41. **J. Shen***, M. Yu*, Q.G. Meng, J. Li, Y.F. Lv, W.Y. Lu. Fatty acid-based strategy for efficient brain targeted gene delivery. *Pharmaceutical Research.* 2013, 30(10): 2573-83. PMID: 23609561. 10.1007/s11095-013-1056-x
42. **J. Shen**, D.J. Burgess. *In vitro* dissolution testing strategies for nanoparticulate drug delivery systems: recent developments and challenges. *Drug Delivery and Translational Research*. 2013, 3(5): 409-15. PMID: 24069580. 10.1007/s13346-013-0129-z
43. Y. Li, Y. Lei, E. Wagner, C. Xie, W.Y. Lu, J.H. Zhu, **J. Shen**, J. Wang, M. Liu. Potent retro-inverso D-peptide for simultaneous targeting of angiogenic blood vasculature and tumor cells. *Bioconjugate Chemistry*. 2013, 24(1): 133-43. PMID: 23241015. 10.1021/bc300537z

44. **J. Shen**, D.J. Burgess. Accelerated *in vitro* release testing methods for extended-release parenteral dosage forms. *Journal of Pharmacy and Pharmacology*. 2012, 64(7): 986-96. PMID: 22686344. 10.1111/j.2042-7158.2012.01482.x
45. C. Li, **J. Shen**, X. Wei, C. Xie, W.Y. Lu. Targeted delivery of a novel palmitylated D-peptide for anti-glioblastoma molecular therapy. *Journal of Drug Targeting*. 2012, 20(3): 264-71. PMID: 22233211. 10.3109/1061186X.2011.645162
46. **J. Shen**, D.J. Burgess. Accelerated *in vitro* release testing of implantable PLGA microsphere/PVA hydrogel composite coatings. *International Journal of Pharmaceutics.* 2012, 422(1-2): 341-48. PMID: 22016033. 10.1016/j.ijpharm.2011.10.020
47. C. Li, **J. Shen**, W.Y. Lu. Mirror-image isomers screening: overcoming the enzyme barriers for the development of peptide and oligonucleotide therapeutics. *Science China Chemistry*. 2011, 41: 1112-20.
48. X.F. Jin, Y. Xu, **J. Shen**, Q.N. Ping, Z. Su, W.L. You. Chitosan-glutathione conjugate-coated poly (butyl cyanoacrylate) nanoparticles: promising carriers for oral thymopentin delivery. *Carbohydrate Polymers*. 2011, 86(1): 51-7. PMID: 20934499. 10.1016/j.carbpol.2011.03.050
49. **J. Shen**, C.Y. Zhan, C. Xie, Q. Meng, B. Gu, C. Li, Y. Zhang, W.Y. Lu. Poly(ethylene glycol)-block-poly(D,L-lactic acid) micelles anchored with angiopep-2 for brain-targeting delivery. *Journal of Drug Targeting*. 2011, 19(3): 197-203. (***Selected as the Key Article by the Editor-in-Chief***). PMID: 20446756 10.3109/1061186X.2010.483517
50. **J. Shen**, Y.P. Deng, X. Jin, Q.N. Ping, Z. Su, L. Li. Thiolated nanostructured lipid carriers as a potential ocular drug delivery system for Cyclosporine A: improving *in vivo* ocular distribution. *International Journal of Pharmaceutics.* 2010, 402(1-2): 248-53. PMID: 20934499. 10.1016/j.ijpharm.2010.10.008
51. M.J. Sun, Y. Wang, **J. Shen**, Q.N. Ping. Octreotide-modification enhances the delivery and targeting of doxorubicin-loaded liposomes to somatostatin receptors expressing tumor in vitro and in vivo. *Nanotechnology*. 2010, 21(47): 475101. PMID: 21030757. 10.1088/0957-4484/21/47/475101
52. **J. Shen**, M.J. Sun, Q.N. Ping. Incorporation of liquid lipid in lipid nanostructured carriers for ocular drug delivery enhancement. *Nanotechnology*. 2010, 21(2): 025101. PMID: 19955616. 10.1088/0957-4484/21/2/025101
53. **J. Shen**, Y. Wang, Q.N. Ping. Mucoadhesive effect of thiolated PEG stearate and its modified NLC for ocular drug delivery. *Journal of Controlled Release*. 2009, 137(3): 217-23. PMID: 19393270. 10.1016/j.jconrel.2009.04.021
54. Q.N Ping, **J. Shen**, Y. Wang. Recent progress in cell penetrating peptides. *Journal of China Pharmaceutical University***.** 2006, 37(suppl): 53.
55. **J. Shen**, L.B. Luan. Preparation and characterization of diammonium glycyrrhizinate liposomes. *Chinese Journal of New Drugs*. 2006, 15(5): 361.
56. J.X. Guo, T. Wu, Q.N. Ping, Y. Chen, **J. Shen**, G. Jiang. Solubilization and pharmacokinetic behaviors of sodium cholate/lecithin-mixed micelles containing cyclosporine A. *Drug Deliv*ery. 2005, 12(1): 35-9. PMID: 15801719.10.1080/10717540590889691

Patents

1. W.Y. Lu, **J. Shen**, *et al*. A pH-sensitive dual-stage brain tumor targeted drug delivery system and nanoparticle preparation method and application. (CN103656650B)
2. Q.N. Ping, Y. Wang, M.J. Sun, **J. Shen**. PEG-decorated phospholipid derivative using octreotide as target ligand and production method thereof. (CN101455845B)
3. Q.N. Ping, **J. Shen**, M.J. Sun, *et al*. Biological adhesion-type polyethylene glycol (PEG) derivative and application thereof in pharmacology. (CN101544756A)

INVITED PRESENTATIONS

1. **J. Shen**, "Advanced Nano Formulation Strategies for Difficult-to-Treat Diseases". National Covid/Nanomedicine Seminar Series NNMD5272/5274, Nanomedicine Academy, Northeastern University, October 2024.

2. **J. Shen**, "Advanced Formulation and Bioequivalence Assessment Strategies". Biogen, Boston, MA, August 2024.
3. **J. Shen**, "Complex Long-Acting Parenterals and *In Vitro-In Vivo* Correlation (IVIVC)". Chicago Land Pharmaceutical Discussion Group (CPDG), Chicago, IL, September 2023.
4. **J. Shen**, "*In Vitro* Permeation Studies of Complex Dosage Forms". SUNOVION Pharmaceuticals, Marlborough, MA, August 2022.
5. **J. Shen**, "Complex Delivery Strategies for Difficult-to-Treat Diseases", Virginia Commonwealth University (virtual), December 2020.
6. **J. Shen**, "IVIVC of Complex Non-Oral Dosage Forms". Gilead Sciences, Foster City, CA, August 2019.
7. **J. Shen**, "Pharmaceutical Development of PLGA/PLA-Based LAI Formulation". Gilead Sciences, Foster City, CA, August 2019.
8. **J. Shen**, "IVIVC of Complex Dosage Forms". SUNOVION, Marlborough, MA, February 2019.
9. **J. Shen**, "IVIVC of Complex Parenteral Polymeric Microspheres and Semi-Solid Applications", 13th Annual USP 4 Application Seminar, Westborough, MA, June 2018.
10. **J. Shen**, D.J. Burgess. "Evaluation and Development of Dissolution Testing Methods for Semisolid Ocular Drug Products". GDUFA-sponsored research grant meeting, FDA White Oak Campus, MD, September 2015.
11. **J. Shen**, D.J. Burgess "*In Vitro* Dissolution Testing of Complex Parenteral Dosage Forms", 10th Annual USP 4 Application Seminar, Westborough, MA, June 2015.
12. **J. Shen**, D.J. Burgess "*In Vitro* Dissolution Testing Strategies for Complex Parenteral Dosage Forms", 9th Annual USP 4 Application Seminar, Westborough, MA, June 2014.

Invited Panelist

1. **J. Shen.** CRCG (Center for Research in Complex Generics). "*In Vitro* Release Test and *In Vitro-In Vivo* Correlation of Complex Ophthalmic, Injectable, Implantable, and Inserted Products FDA-CRCG Workshop". June 2022.
2. **J. Shen**. PQRI (Product Quality Research Institute). "Select challenges in the development of Long Acting Injectables (LAI)". September 2021.

Oral Presentations

1. Weizhou Yue, **Jie Shen**. "Impact of Material Differences on *In Vitro* Performance of Clindamycin Phosphate Vaginal Creams". IPEC-Americas Foundation Graduate Student Award Ceremony, Orlando, FL, October 2023.
2. W. Yue, **J. Shen**. A Bioinspired *In Situ* Hydrogel Delivery Platform for Sustained Payload Release. *86th New England Complex Fluids* (virtual), March 2021.
3. B. Brown, S. Griffin, R. Ivone, **J. Shen**. Extended Stabilities of Extemporaneously Prepared Oral Liquid Formulations of Venetoclax, Midostaurin, Sorafenib, and Ibrutinib. *RI Health Systems Pharmacist Showcase* (virtual), November 2020.
4. **J. Shen**. Development of Nanoparticle-Based Orodispersible and Palatable Pediatric Formulations. *2020 CRS Annual Meeting and Exposition*, June 2020.
5. **J. Shen**. Orodispersible Pediatric formulations. *3rd International Symposium on Pharmaceutical Engineering Research*. Braunschweig, Germany, September 2019.
6. **J. Shen**, B. Gu, W.Y. Lu. A Novel Folate-Based Carrier for Lymphatic Targeting. *37th Annual Meeting and Exposition of Controlled Release Society*, Portland, OR, July 2010.
7. **J. Shen**, Q.N. Ping. Mucoadhesive Effect of Thiolated PEG Stearate and Its Modified NLC for Ocular Drug Delivery. *4th International Pharmaceutical Symposium*, Shanghai, China, October 2009.

Conference Poster Presentations

1. A. Chauhan, L.X. Xie, M. Kelchen, P. Ghosh, **J. Shen**. Understanding critical quality attributes of gelatin coated miconazole nitrate vaginal inserts and suppositories. *2024 AAPS PharmSci 360*, Salt Lake City, UT, October 2024.
2. W.Z. Yue, H.T. Cho, X. Pepin, **J. Shen**. Elucidation of Drug Release Mechanisms of Quetiapine Fumarate Extended-Release Tablets Via Real Time Surface Dissolution Imaging. *2024 AAPS PharmSci 360*, Salt Lake City, UT, October 2024.

3. A. Chauhan, L.X. Xie, M. Kelchen, P. Ghosh, S. Raney, **J. Shen**. Development of an *In Vitro* Release Test Method for Miconazole Nitrate Vaginal Suppositories. *2024 CRS Annual Meeting*, Bologna, Italy, July 2024.
4. W.Z. Yue, T.Q. Wang, S. Szpak, **J. Shen**. Development of a Novel Lipid Nanoparticle Based Immunochemotherapy against Brain Cancer. *2023 AAPS PharmSci 360*, Orlando, FL, October 2023.
5. W.Z. Yue, L.X. Xie, M. Kelchen, P. Ghosh, M.M. Niu, S. Raney, **J. Shen**. Impact of Fatty Acids on *In Vitro* Performance of Clindamycin Phosphate Vaginal Creams. *2023 CRS Annual Meeting*, Las Vegas, NV, July 2023.
6. A. Li, R. Ivone, S. Vining, M. Saeed, **J. Shen**. Development of 3D Printed Mini-Tablets for Pediatric Use. *22nd New England Science Symposium*, Boston, MA, April 2023.
7. Y. Suita, S. Miriyala, D. Toruner, B. Akobundu, W. Yue, L. Xie, S. Toms, **J. Shen**, and N. Tapinos. GliaTrap: CXCL12-loaded hydrogel for attracting and trapping glioblastoma stem cells. *12th AACR-JCA Join Conference: Breakthroughs in Cancer Research*, Maui, HI, December 2022.
8. L.X. Xie, W.Z. Yue, M. Kelchen, P. Ghosh, M.M. Niu, S. Raney, **J. Shen**. Impact of Material Attributes on *In Vitro* Performance of Clindamycin Phosphate Vaginal Creams. *2022 AAPS PharmSci 360*, Boston, MA, October 2022.
9. J. Song, L.X. Xie, M.K. Fu, L. Pranatharthiharan, **J. Shen**. Investigation of *In Vitro* Buccal Permeation Mechanism of Compound A. *2022 AAPS PharmSci 360*, Boston, MA, October 2022.
10. S. Szpak, W. Z. Yue, **J. Shen**. Characterization and *In Vitro* Testing of Mannose-Modified BLZ Liposomes for Reprograming Tumor-Associated Macrophages. *15th RI SURF Conference*, Kingston, RI, July 2022.
11. M. Saeed, A. Li, R. Ivone, **J. Shen**. Development of 3D Printed Mini-tablets for Pediatric Use. *15th RI SURF Conference*, Kingston, RI, July 2022.
12. L.X. Xie, W.Z. Yue, M. Kelchen, P. Ghosh, M.M. Niu, S. Raney, **J. Shen**. Development of an *In Vitro* Permeation Test Method for Vaginal Creams. *2022 CRS Annual Meeting*, Montreal, Canada, July 2022.
13. L.X. Xie, M. Kelchen, P. Ghosh, M.M. Niu, S. Raney, **J. Shen**. Development of an *In Vitro* Permeation Test Method for Rectal Suppositories. *2021 AAPS PharmSci360*, Philadelphia, PA, October 2021.
14. W.Z. Yue, L.X. Xie, M. Kelchen, P. Ghosh, M.M. Niu, S. Raney, **J. Shen**. Development of an *In Vitro* Release Testing Method for Vaginal Creams. *2021 AAPS PharmSci360*, Philadelphia, PA, October 2021.
15. S. Szpak, T.Q. Wang, **J. Shen**. Development and Characterization of BLZ-loaded Liposomes for Glioblastoma Treatment. *14th RI SURF Conference*, Kingston, RI, July 2021.
16. O. Gonzales, W.Z. Yue, I. Andreu, **J. Shen**. Formulation Optimization and Characterization of Clindamycin Phosphate Vaginal Creams. *14th RI SURF Conference*, Kingston, RI, July 2021.
17. L.X. Xie, W.Z. Yue, M. Kelchen, P. Ghosh, M.M. Niu, S. Raney, **J. Shen**. Impact of Material Attributes on *In Vitro* Release Characteristics of Rectal Suppositories. *2021 CRS Virtual Annual Meeting,* July 2021.
18. L.X. Xie, W.Z. Yue, **J. Shen**. A Long-Acting Nanoparticle/In Situ Hydrogel Composite for the Treatment of Uveal Melanoma. *2021 CRS Virtual Annual Meeting,* July 2021.
19. O. Lyanda, I. Oje, L.X. Xie, **J. Shen**. *In Vitro* Dissolution Testing of Suppository Products. *2019 RI SURF Conference*, Virtual, January 2021.
20. T.Q. Wang, **J. Shen**. Lipid Nanoparticles for M2-Type Tumor Associated Macrophage Specific Drug Delivery. *2020 AAPS Virtual PharmSci360,* October 2020.
21. L.X. Xie, M. Kelchen, P. Ghosh, S. Raney, **J. Shen**. Development of an *In Vitro* Release Testing Method for Hard Fat Based Rectal Suppositories. *2020 AAPS Virtual PharmSci360*, October 2020.
22. X.Y. Wang, **J. Shen**, M.S. Suh, A. Gupta, W.Y. Lu, D.J. Burgess. Labeling of Pre-Formed Liposomes with Dil using Post-insertion Technique. *2020 CRS Virtual Annual Meeting and Exposition*, June 2020.
23. M.P. Simmeth, L.X. Xie, **J. Shen**. Efficient Nanog Knockdown by Novel Ternary siRNA Complexes for Acute Myeloid Leukemia Therapy. *2019 AAPS PharmSci360*, San Antonio, TX, USA, November 2019.
24. R. Ivone, A. Fernando, B. DeBoef, S. Meenach, **J. Shen**. Development of Pediatric Anti-HIV Formulations with Improved Dissolution Characteristics. *2019 AAPS PharmSci360*, San Antonio, TX, USA, November 2019.
25. Y. Yang, N. Zheng, W.G. Shan, **J. Shen**. Mechanistic Study on Rapid Fabrication of Microspheres and Microfibers Based on Melt Centrifugation Technique. *2019 CRS Annual Meeting and Exposition*, Valencia, Spain, July 2019.
26. L.X. Xie, **J. Shen**. Development of a Novel HIF-1a siRNA Complexes for the Treatment of Uveal Melanoma. *2019 CRS Annual Meeting and Exposition*, Valencia, Spain, July 2019.

27. G. Rozumek, L.X. Xie, **J. Shen**. Development of a Biocompatible Nanoparticle/Hydrogel Composite for the Treatment of Glioblastoma. *2019 RI-INBRE SURF Conference*, Kingston, RI, July 2019.
28. L.X. Xie, **J. Shen**. Novel Ternary siRNA Complexes for Efficient Inhibition of Uveal Melanoma. *Rhode Island NIH IDeA Symposium*, Providence, RI, June 2019.
29. Y.P. Deng, X.F. Lin, Y. Wang, **J. Shen**. Development of a Novel Oral Fast-Dissolving Film for Pediatric Use. *2018 AAPS PharmSci360*, Washington D.C., USA, November 2018.
30. L.X. Xie, K. Ibrahim, K. Chen, **J. Shen**. Development of a Novel Sustained Release *In Situ* Gelling System for the Treatment of Uveal Melanoma. *2018 AAPS PharmSci360*, Washington D.C., USA, November 2018.
31. J. Andhariya, **J. Shen**, Y. Zou, Y. Wang, S. Choi, D.J. Burgess. Development of *In Vitro-In Vivo* Correlation for Complex Parenteral Microsphere Drug Products - Effect of Burst Release. *2018 AAPS PharmSci360*, Washington D.C., USA, November 2018.
32. J. Andhariya, **J. Shen**, Y. Zou, Y. Wang, S. Choi, D.J. Burgess. Development of *In Vitro-In Vivo* Correlation for Peptide Microspheres - Possibility and Challenges. *2018 AAPS PharmSci360*, Washington D.C., USA, November 2018.
33. J. Andhariya, R. Jog, **J. Shen**, S. Choi, Y. Wang, Y. Zou, D.J. Burgess. Evaluation of Effect of Minor Manufacturing Changes and Establishment of IVIVC for Compositionally Equivalent Parenteral Microsphere Drug Products. *2018 Globalization of Pharmaceutics Education Network (GPEN) meeting*, Singapore, September 2018.
34. R. Ivone, I. Oje, S. Meenach, **J. Shen**. Development of Novel Cyclodextrin-Based Complexation Formulations for the Delivery of HIV Therapeutics to Pediatric Patients. *2018 RI-INBRE SURF Conference*, Kingston, RI, July 2018.
35. G. Rozumek, L.X. Xie, K. Ibrahim, **J. Shen**. Development of a Novel *In Situ* Gelling Delivery System for the Treatment of Uveal Melanoma. *2018 RI-INBRE SURF Conference*, Kingston, RI, July 2018.
36. J. Andhariya, **J. Shen**, Y. Zou, Y. Wang, S. Choi, D.J. Burgess. Effect of Manufacturing Difference on the Drug Release Characteristics of Peptide Microspheres. *2018 CRS Annual Meeting and Exposition*, New York, NY, USA, July 2018.
37. J. Andhariya, **J. Shen**, S. Choi, Y. Wang, Y. Zou, D.J. Burgess. Evaluation of Effect of Minor Manufacturing Changes and Establishment of IVIVC for Compositionally Equivalent Parenteral Microsphere Drug Products. *11th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology*, Granada, Spain, March 2018.
38. A. Gupta, A. Costa, **J. Shen**, X.M. Xu, D.J. Burgess. Characterization of Amphotericin B Liposomes Produced *via* Continuous Processing using Co-Axial Jet in Co-Flow Technology. *2017 AAPS Annual Meeting and Exposition*, San Diego, CA, USA, November 2017.
39. T.T. Li, M. Pazienza, R. Lalla, **J. Shen**, D.J. Burgess. Development of a Pluronic Based *In Situ* Gel. *2017 AAPS Annual Meeting and Exposition*, San Diego, CA, USA, November 2017.
40. J. Andhariya, **J. Shen**, S. Choi, Y. Wang, Y. Zou, D.J. Burgess. Development of *In Vitro-In Vivo* Correlation of Parenteral Naltrexone Loaded Polymeric Microspheres. *2017 CRS Annual Meeting and Exposition*, Boston, MA, USA, July 2017.
41. X.Y. Wang, M.S. Suh, **J. Shen**, W.Y. Lu, D.J. Burgess. Impact of Particle Size and PEG-modification on Drug Delivery to Brain Tumors. *2017 CRS Annual Meeting and Exposition*, Boston, MA, USA, July 2017.
42. N. Tipnis, **J. Shen**, D.J. Burgess. *In Vitro* Degradation of Compound A Loaded PLGA Microspheres. *2016 AAPS Annual Meeting and Exposition*, Denver, CO, USA, November 2016.
43. C. Price, **J. Shen**, Y. Zou, Y. Wang, D. Kozak, S. Choi, D.J. Burgess. The Effect of Crosslinking Reagent Ratio of a 5-Year Contraceptive Implant on Drug Release. *2016 AAPS Annual Meeting and Exposition*, Denver, CO, USA, November 2016.
44. Q.Y. Bao, **J. Shen**, B. Newman, Y. Wang, S. Choi, D. J. Burgess. Manufacturing Differences on Physicochemical and *In Vitro* Release Characteristics of Semisolid Ophthalmic Ointments. *2016 AAPS Annual Meeting and Exposition*, Denver, CO, USA, November 2016.
45. Q.Y. Bao, **J. Shen**, R. Jog, B. Newman, Y. Wang, S. Choi, D. J. Burgess. Impact of Excipient Sources on *In Vitro* Drug Release Characteristics of Semisolid Ophthalmic Ointments. *2016 AAPS Annual Meeting and Exposition*, Denver, CO, USA, November 2016.

46. J. Andhariya, **J. Shen**, S. Choi, Y. Wang, W. Qu, D.J. Burgess. Effect of Manufacturing Processes on *In Vitro* and *In Vivo* Performance of Naltrexone Microspheres. *2016 AAPS Annual Meeting and Exposition*, Denver, CO, USA, November 2016.
47. **J. Shen**, W. Qu, Y. Wang, S. Choi, D.J. Burgess. Effect of Manufacturing Process Parameters on *In Vitro* Performance of Peptide Microspheres. *2016 CRS Annual Meeting and Exposition*, Seattle, WA, USA, July 2016.
48. J. Andhariya, **J. Shen**, W. Qu, S. Choi, Y. Wang, D.J. Burgess. Effect of Manufacturing Processes on Critical Quality Attributes of Naltrexone Microspheres. *2016 CRS Annual Meeting and Exposition*, Seattle, WA, USA, July 2016.
49. S. Bozal, **J. Shen**. The Effect of Polymer-Drug Interaction on Product Quality of PLGA Microspheres. *2016 Frontiers in Undergraduate Research Poster Exhibition, Storrs*, CT, USA, April 2016.
50. **J. Shen**, S. Choi, W. Qu, Y. Wang, D.J. Burgess. Effect of Manufacturing Process Parameters on Physicochemical Properties of Peptide Microspheres. *2015 AAPS Annual Meeting and Exposition*, Orlando, FL, USA, October 2015.
51. N. Swarnakar, **J. Shen**, W. Qu, S. Choi, Y. Wang, D.J. Burgess. Development of an Accelerated *In Vitro* Release Testing Method for Vivitrol®. *2015 AAPS Annual Meeting and Exposition*, Orlando, FL, USA, October 2015.
52. J. Andhariya, **J. Shen**, W. Qu, S. Choi, Y. Wang, D.J. Burgess. Storage Stability Tests of Risperidone-Loaded PLGA Microspheres. *2015 AAPS Annual Meeting and Exposition*, Orlando, FL, USA, October 2015.
53. R. Jog, **J. Shen**, N. Jugade, D. Cheng, R. Gokhale, D.J. Burgess. DoE Approach for the Preparation of Stable Amorphous Nanoparticles of ABT-102. *2015 AAPS Annual Meeting and Exposition*, Orlando, FL, USA, October 2015.
54. N. Tipnis, **J. Shen**, D.J. Burgess. Effect of Media Characteristics on *In Vitro* Release of Compound A from PLGA Microspheres using USP Apparatus 4. *2015 AAPS Annual Meeting and Exposition*, Orlando, FL, USA, October 2015.
55. **J. Shen**, N. Tipnis, S. Choi, W. Qu, Y. Wang, D.J. Burgess. *In Vitro-In Vivo Correlation* of Risperidone Microspheres. *2015 CRS Annual Meeting & Exposition*, Edinburgh, Scotland, July 2015.
56. **J. Shen**, W. Qu, S. Choi, Y. Wang, D.J. Burgess. *In Vitro* and *In Vivo* Performance Testing of Risperidone Microspheres. *2014 AAPS Annual Meeting and Exposition,* San Diego, CA, USA, 2014.
57. **J. Shen**, W. Qu, S. Choi, Y. Wang, D.J. Burgess. Development of an *In Vitro* Release Testing Method for Porous PLGA Microspheres. *2014 AAPS Annual Meeting and Exposition,* San Diego, CA, USA, 2014.
58. M.S. Suh, **J. Shen**, L.T. Kuhn, D.J. Burgess. Layer-By-Layer Assembled Calcium Phosphate Nanoparticles for Targeted Anticancer Drug Delivery. *2014 AAPS Annual Meeting and Exposition,* San Diego, CA, USA, 2014.
59. S. Kumar, R. Jog, **J. Shen**, B. Zolnik, N. Sadrieh, D.J. Burgess. Formulation and Performance of Danazol Nano-Crystalline Suspensions and Spray-Dried Powders. *2014 AAPS Annual Meeting and Exposition,* San Diego, CA, USA, 2014.
60. S. Kumar, R. Jog, **J. Shen**, B. Zolnik, N. Sadrieh, D.J. Burgess. *In Vitro* and *In Vivo* Performance of Different Sized Spray-Dried Crystalline Itraconazole. *2014 AAPS Annual Meeting and Exposition,* San Diego, CA, USA, 2014.
61. S. Kumar, **J. Shen**, B. Zolnik, N. Sadrieh, D.J. Burgess. Design of Experiment (DOE) Approach to Formulate Nanocrystalline Spray Dried Formulation of Poorly Soluble Drug. *2013 AAPS Annual Meeting and Exposition*, San Antonio, USA, 2013.
62. **J. Shen**, F. Papadimitrakopoulos, D.J. Burgess. Neovascularization through Programmed Delivery of Tissue-Response Modifiers *via* a PLGA Microsphere/PVA Hydrogel Composite Coating Platform. *40th Annual Meeting and Expositions of Controlled Release Society*, Hawaii, USA, 2013.
63. **J. Shen**, D.J. Burgess, W.Y. Lu. pH-Responsive, Dual-Peptide Modified Polymeric Micelles for Active Glioblastoma-Targeted Drug Delivery. *2012 AAPS Annual Meeting and Exposition*, Chicago, USA, 2012.
64. M. Kastellorizios, **J. Shen**, Y. Wang, F. Papadimitrakopoulos, D.J. Burgess. PLGA Microsphere/PVA Hydrogel Coatings for Subcutaneous Implants: Controlling Inflammation in a Large Animal Model. *39th Annual Meeting and Expositions of Controlled Release Society*, Québec City, Canada, 2012.
65. **J. Shen**, C. Li, W.Y. Lu. Poly(Ethylene Glycol)-Block-Poly(D,L-Lactide Acid) Micelles Anchored with Angiopep-2 for Brain-Targeting. *2011 AAPS Annual Meeting and Exposition*, Washington, DC, USA, 2011.

66. **J. Shen**, Y. Wang, F. Papadimitrakopoulos, D.J. Burgess. Dexamethasone Loaded Microsphere/Hydrogel Biosensor Coating to Control Inflammation in Obese Rats. *2011 AAPS Annual Meeting and Exposition*, Washington, DC, USA, 2011.
67. **J. Shen**, F. Papadimitrakopoulos, D.J. Burgess. Accelerated *In Vitro* Release Test for PLGA Microsphere/PVA Hydrogel Implant Coatings. *2011 AAPS Annual Meeting and Exposition*, Washington, DC, USA, 2011.
68. **J. Shen**, D.J. Burgess. USP Apparatus 4: Discriminatory *In Vitro* Drug Release Test for Implantable Dexamethasone Loaded PLGA Microspheres/PVA Hydrogel Composite Coating. *38th Annual Meeting and Expositions of Controlled Release Society*, National Harbor, Maryland, USA, 2011.
69. C. Li, **J. Shen**, W.Y. Lu. Targeted Delivery of a Novel D-Peptide for Anti-Glioblastoma Molecular Therapy. *38th Annual Meeting and Expositions of Controlled Release Society*, National Harbor, Maryland, USA, 2011.
70. **J. Shen**, W.Y. Lu. Aptamer – a Novel Ligand for Targeted Drug Delivery. *1st Chinese Postdoctoral Symposium*, Beijing, China, 2010.
71. M.J. Sun, **J. Shen**, Q.N. Ping. Pegylated Nanostructured Lipid Carriers for Ocular Delivery of Cyclosporine A. *27th Annual Meeting of Chinese Chemical Society*, Xiamen, China, 2010.
72. Q.G. Meng, J. Li, **J. Shen**, W.Y. Lu. A Novel Brain-Targeting System of Myristic Acid-Conjugated Polyethylenimine: Preparation and Characterization. *37th Annual Meeting and Exposition of Controlled Release Society*, Portland, USA, 2010.

TEACHING

PHSC 5230 Foundation in Pharmaceutical Sciences II	Coordinator/Instructor	Fall 2024
PHSC 3430 Pharmacokinetics and Biopharmaceutics	Coordinator/Instructor	Spring 2024

Major Course or Curriculum Developments/Revisions

PHSC5230 Foundation in Pharmaceutical Sciences II: Created new course materials	2024
PHSC3430 Pharmacokinetics and Biopharmaceutics: Created new course materials	2024
BPS625 (Advanced Physical Pharmacy, 4 crs.) (Course Coordinator): Created new course materials	2020
BPS320 (Dosage Forms, 3 crs.) (Course Coordinator): Led the pharmaceutics group to develop this Pharm.D. course	2019
BPS315 (Pharmaceutics II, 4 crs.) (Sole Instructor): Led the pharmaceutics group to develop this new course for Bachelor of Science in Pharmaceutical Sciences (BSPS) and CHE students	2018

Major Teaching/Outreach Improvement (URI)

Virtual reality (VR) and 3D gaming based Nanotechnology Lab learning modules	2019 - 2021

Courses (URI)

BPS625 (Advanced Physical Pharmacy, 4 crs.)	Coordinator/Instructor	Spring 2023
PHC520 (Journal Club, 1 cr.)	Coordinator	Spring 2023
BPS 320 (Dosage Forms, 3 crs.) (~125 Pharm.D. students/year)	Coordinator/Co-Instructor (60%)	2020 - 2023
EGR 101X (COVID-19-Experimental course, 1 cr.)	Co-Instructor	2020
BPS 315 (Pharmaceutics II, 4 crs.) (~43 BSPS/CHE students/year)	Coordinator/Instructor	2018 - 2023
PHC 502 (Drug Development, 3 crs.) (~23 graduate students/year)	Coordinator (50%)	2017 - 2023
BPS/CHE 540 (Advanced Drug Delivery Systems, 3 crs.) (~15 graduate students/year)	Co-Instructor	2018 - 2023
CHE 491/2: CHE Undergraduate Special Problems (Independent Research)		2018 - 2023
BPS 497/8: BPS Undergraduate Special Problems (Independent Research)		2017 - 2023
PHC 694: Seminar II (1 cr.)	Coordinator	Spring 2018
BPS 443 (Formulation & Manufacturing Laboratory, 2 crs.)	Co-Instructor	Spring 2017
BPS 305 (Dosage Forms III, 2 crs.) (~180 Pharm.D. and BSPS/CHE students/year)	Co-Instructor (60%)	2016 & 2017

Courses (UConn)

UNIV 1784 (Pharmaceutical and Biomedical Research, 1 cr.)	Instructor	2014 - 2016

PHAR 4030 (Foundations in Pharmaceutics II (Dispersed Systems, 3 crs.)	Guest Lecturer	2013 - 2016
PHAR 6290 (Colloid Chemistry and Interfacial Phenomena, 3 crs.)	Guest Lecturer	2012 & 2015
PHAR 3012 (Pharmacy Research Seminar, 1 cr.)	Guest Lecturer	2015
PHAR 6290 (Advanced Biopharmaceutics, 3 crs.)	Guest Lecturer	2014

MENTORING

***Trainee Awards*:**

Daniel Shen	NU Undergraduate Project-Based Exploration for the Advancement of Knowledge (PEAK) Experience Ascent Award	2024
Hannah Kim	NU PEAK Experience Base Camp Award	2024
Anna Li	URI MARC U*STAR (Maximizing Access to Research Career Undergraduate Student Training in Academic Research) Scholarship, NIH/NIGMS	2022 - 2023
Stefanie Vining	Undergraduate Research Grant, URI Office of Undergraduate Research and Innovation (URI^2)	2022
Hannah Leahy	Undergraduate Research Grant, URI^2	2022
Oluwatoni Adebanjo	Research Achievement Award, BSPS program, URI COP	2022
Juan Song	The 3rd place of poster presentation, URI COP Research Showcase	2022
Patricia Adegboyega	NELSAMP (Northeast Louis Stokes Alliance for Minority Participation) Scholarship	2021
Weizhou Yue	IPEC-Americas Foundation Graduate Student Award	2023
	Enhancement of Graduate Research Award Grants, URI	2022
	AAPS Travelship sponsored by AstraZeneca	2021
Dr. Lingxiao Xie	CRS Ocular Delivery Focus Group Trainee Image Contest Winner	2020
Ryan Ivone	American-Australian Association (AAA) Sir Keith Murdoch Scholarship	2020
	RI-INBRE Bridge to Graduate School Fellowship	2018
Anna Li, Molood Saeed	Undergraduate Research Grant, URI^2	2021, 2022
Stephen Szpak	Undergraduate Research Grant, URI^2	2022
Ibukunoluwa Oje, Yingqi (Vicky) Lin	Undergraduate Research Grant, URI^2	2019
Matthew Simmeth	Undergraduate Research Grant, URI^2	2018
Haris Qureshi	OUR Supply Award, UConn Office of Undergraduate Research	2017
Suleyman Bozal	OUR Supply Award, UConn Office of Undergraduate Research	2016

Graduate Students (Major Advisor):	**Expected/ Completed**
1. Zekun Li, Ph.D. student, Pharmaceutical Sciences	2027
2. Anjali Chauhan, Ph.D. student, Pharmaceutical Sciences	2026
3. Shiqing Zhou, M.S. student, Pharmaceutical Sciences	2024- present
4. Pranali Parag Waghode, M.S. student, Pharmaceutical Sciences	2024
5. Sathya Sri Balakrishnan, M.S. student, Pharmaceutical Sciences	December 2024
6. Weizhou Yue, Ph.D. candidate, Pharmaceutical Sciences	December 2023
7. Juan Song, M.S., Pharmaceutical Sciences	August 2023
8. Michael Khoury, M.S., Pharmaceutical Sciences	August 2023
9. Ryan Ivone, Ph.D., Pharmaceutical Sciences (graduated in CHE in 2023)	2019-2021
10. Khaled Ibrahim, M.S., Pharmaceutical Sciences	August 2020
11. Ryan Ivone, M.S., Pharmaceutical Sciences (co-major advisor)	May 2019
12. Mehwish Ghazanfer, M.S., Pharmaceutical Sciences	May 2019

Research Scientist:

1.	Dr. Lingxiao Xie (Research Associate II) (current position: ORISE fellow at the FDA)	2020 - 2023

Postdoctoral Scientists:

1.	Dr. Weizhou Yue, Pharmaceutical Sciences	2024 - present
2.	Dr. Zizhao Xu, Pharmaceutical Sciences	2024 - present
3.	Dr. Mohamed Mahmoud, Pharmaceutical Sciences	2024
4.	Dr. Tianqi Wang, Pharmaceutical Sciences (current position: research assistant professor at Sun Yat-sen University, a top ten University in China)	2019 - 2021
5.	Dr. Lingxiao Xie, Pharmaceutical Sciences	2018 - 2020
6.	Dr. Kang Chen, Pharmaceutical Sciences (current position: senior scientist)	2017

Visiting Scientists/Scholars:

1.	Lara Hombrecher, Computational Biology, German Youth Science Competition winner	2023
2.	Dr. Yanping Deng, Pharmaceutical Sciences, Fujian Medical University	2019 - 2020
3.	Lian Shen, Ph.D. student, Pharmaceutical Sciences, Zhejiang University of Technology	2019
4.	Dr. Yan Yang, Pharmaceutical Sciences, Zhejiang University of Technology	2018 - 2019
5.	Sadegh Modaresi, M.S., Pharmaceutical Sciences	2018 - 2019

Undergraduate Students:

Sharon Berman, Megan Johnsen, Trinity Philips, Daniel Shen, Deborah Effiong (Pharm Sci), Hannah Kim and Chenfei Zhou (Pharm.D.)	2024- present
Stephen Szpak (CHE); Anna Li (CHE); Molood Saeed (CHE); Stefanie Vining (CHE); Hannah Leahy (BSPS); Jonah Ricciardi (BSPS)	2022 - 2023
Stephen Szpak (CHE); Anna Li (CHE); Oluwatoni Adebanjo (BSPS); Mckenzie Roy (BSPS); Molood Saeed (CHE); Patricia Adegboyega (CHE); Thu Lu (Pharm.D.)	2021 - 2022
Daisy (Minsu) Kim (Pharm.D.); Grace (Hyujune) Mo (Pharm.D.); Oriana Gonzales (Biology, Community College of Rhode Island, RI-INBRE SURF)	2021
Ola Lyanda; Yingqi (Vicky) Lin; Nhi Doan; Erika Poissant; Daniel Leonard; Ibukunoluwa Oje; Jordan Dean (***Honors Thesis***) (BSPS)	2019 - 2020
Gabrielle Rozumek (Biology, Roger Williams University, RI-INBRE SURF)	2018, 2019
Tala Allababidi (Cell and Molecular Biology); Gian Kishfy (CHE); Julie Phin (CHE); Yasaman Jafari (Health Studies); Matthew Simmeth (CHE); Nhi Doan (BSPS)	2018 - 2019
Khaled Ibrahim (BSPS); Kayla Gilbert (CHE)	2017 - 2018
Yeon Kim (Pharm.D. student)	2017
Anna Geraci; Areeba Siddiqui; Brian Chan; Shannon Mee (BSPS)	2016 - 2017
Haris Qureshi, Biomedical Engineering, UConn Honors Program	2014 - 2017
Suleyman Bozal, Structural Biology/Biophysics, UConn Honors Program	2015 - 2016
Neha Pillai, BME, UConn Honors Program	2014 - 2015
Kyulim Lee, Pharm.D., UConn	2013 - 2015

Graduate Student Dissertation Committees:

1.	Abhishek Srihari Rampelli, Bioengineering	2025 - present
2.	Ray Li, Ph.D. student, CHE	2024 - present
3.	Rachel White, Ph.D. candidate, Pharmaceutical Sciences	2024 - present
4.	Christina Sharkey, Ph.D. candidate, Pharmaceutical Sciences	2024 - present
5.	Danny Kane, Ph.D. candidate, CHE (URI)	Graduated in 2024
6.	Michael DuPont, Ph.D. candidate, Physics (URI)	2023 - 2024
7.	Lisa Madungwe, Ph.D. student, CHE (URI)	2022 - 2023
8.	Qiwen Chen, Ph.D. student, Pharmaceutical Sciences (URI)	2022 - 2023
9.	Aceer Nadeem, Ph.D. candidate, CHE (URI)	2022 - 2023
10.	Yibo Li, Ph.D. student, Pharmaceutical Sciences (URI)	Graduated in 2023

11. Yang Liu, Ph.D., Mechanical and Industrial Engineering (NU) — Graduated in 2023
12. Pedro Mesquita, M.S., Mechanical Engineering and Applied Mechanics — Graduated in 2023
13. Yusuku Suita, Ph.D., Molecular Pharmacology, Physiology and Biotechnology, Brown University — Graduated in 2023
14. Matthew Freeman, Ph.D., CHE — Graduated in 2023
15. James Hagan, Ph.D., Chemistry — Graduated in 2023
16. Muzahidul Islan Anik, Ph.D., CHE — Graduated in 2022
17. Md. Golam Jakaria, Ph.D., CHE — Graduated in 2021
18. Riley Kirk, Ph.D., Pharmaceutical Sciences — Graduated in 2021
19. Tingting Li, Ph.D., Pharmaceutical Sciences, UConn — Graduated in 2021
20. Enoch Cobbina, M.S., Statistics — Graduated in 2019
21. Nishan Shah, Ph.D., Pharmaceutical Sciences — Graduated in 2019
22. Janki Andhariya, Ph.D., Pharmaceutical Sciences (UConn) — Graduated in 2019
23. Armin Sadighi, Ph.D., Pharmaceutical Sciences — Graduated in 2018

IEP (International Engineering Program) Trainees:

1. Monika Neal, CHE, URI (German Program, co-advised with Julia Großeheilmann, TU Braunschweig, Germany) — 2019 - 2020
2. Akira Matsumoto, B.S. student in Engineering, Okayama University, Japan — Summer 2019
3. Keita Sugimura, B.S. student in Engineering, Okayama University, Japan — Summer 2019
4. Takuto Hayakawa, B.S. student in Engineering, Okayama University, Japan — Summer 2018

Served as Chair of Committee or Defense Committee:

1. Hannah Visca, Ph.D., Physics, URI — 2023
2. Tomali Chakravarty, Ph.D., Cell Biology, URI — 2022
3. Mitchell Gravely, Ph.D., CHE, URI — 2021
4. Mohammad Moein Safaee, Ph.D., CHE, URI — 2020
5. Minoo Madani, Ph.D., CHE, URI — 2020
6. Anna Haynes, M.S., Chemistry, URI — 2020
7. Tania Emi, Ph.D., CHE, URI — 2019
8. Ashvin Fernando, Ph.D., Chemistry, URI — 2019
9. Bahador Marzban, Ph.D., Mechanical, Industrial & Systems Engineering, URI — 2018
10. Da Wei, Ph.D., Physics (Biophysics), URI — 2018
11. Rolf Staud, M.S., CHE, URI — 2018

SERVICE

University, College/Departmental Service Activities:

- Member, NU SOPPS Academic & Professional Standing Committee — 2024 - present
- Member, NU SOPPS Graduate Committee — 2024 - present
- Advisor for URI BSPS Class of 2025 — 2022 - 2023
- Member, URI COP Strategic Planning — 2021 - 2023
- Member, URI Undergraduate Research Grant Review Committee — 2021 - 2023
- Member, URI COE DEI Student Enrollment & Retention subcommittee — 2020 - 2023
- Advisor for URI Pharm.D. Class of 2024 — 2020 - 2023
- Member, URI COP Graduate Program Committee — 2018 - 2023
- Faculty Volunteer, Pre-Pharmacy Interviews — 2018 - 2023
- Senior Development Scientist, URI Pharmaceutical Development Institute (PDI) — 2016 - 2023
- Faculty Volunteer, URI COE Admission Open Houses — 2019 - 2022
- Member, URI Nanotechnology Core Facility: Steering Committee — 2018 - 2022
- Ad hoc member, URI core facilities LIMS committee — 2021 -2022

Member, URI Nanotechnology Core Director Search Committee 2022
Member, RI-INBRE Core Facility Director Search Committee 2021
Faculty Mentor for URI BSPS students 2018 - 2020
Member, URI BPS Lecturer Search Committee 2017 - 2018
Member, URI COP Research Committee 2017 - 2018
Member, URI COP IPE Working Group for Pharm.D. Curricular Revision 2017

Outreach Activities:

Instructor, NU Pharmaceutical Engineering Academy (outreach program for high school students in MA) 2024 - present
Instructor, Rhode Island Nano-Bio Engineering Academy (RINBE) (Outreach program with RI High Schools) 2020 - 2023
Global Science & Envirotech, Inc.'s STEAM summer camp field trip to COP August 2022
National Guard STEM Exploration Open House June 2022

International/National Service Activities:

Vice Chair, AAPS In Vitro Release and Dissolution Testing Community 2021 - 2022
Vice Chair, CRS C&DP Division 2021 - 2022
Delegate Alternate, AACP House 2020 - 2021
Secretary, AAPS In Vitro Release and Dissolution Testing Community 2020 - 2021
Secretary, CRS C&DP Division 2019 - 2021
Secretary, CRS, Ocular Drug Delivery Focus Group 2019 - 2021
Secretary, CRS, Bioinspired and Biomimetic Focus Group 2019 - 2020

Conference Moderator

1. Technical Session VI - Nanomedicine & Nanoscale Delivery VI, *2024 CRS Annual Meeting & Exposition*, Bologna, Italy, July 2024
2. AAPS IVRDT/Jagiellonian University Outreach Workshop on "A quest for biowaiver, including next generation dissolution characterization and modeling." 2022
3. C&DP scientific session on "Delivery Technologies in Cosmetics and Consumer Products", *2021 CRS Annual Meeting & Exposition (virtual)* 2021
4. C&DP scientific session on "Cosmetics and Consumer Products", *2020 CRS Annual Meeting & Exposition (virtual)* 2020
5. C&DP scientific session on "Encapsulation and Controlled Release for Industrial Applications", *2016 CRS Annual Meeting & Exposition, Seattle* 2016

Conference Chair

1. Scientific Session on "Improving In Vitro Methodologies: Predicting Outcomes", *2017 CRS Annual Meeting & Exposition, Boston* 2017

Conference/Symposium Organization Committee

1. AAPS IVRDT/The University of Philippines Manila Outreach Webinar Series on "Approaches, Regulatory Challenges, and Advances in Bioequivalence, Dissolution Testing, and Biowaivers" 2023
2. AAPS IVRDT/Jagiellonian University Outreach Workshop on "A quest for biowaiver, including next generation dissolution characterization and modeling" 2022
3. The 86th New England Complex Fluids Symposium (Virtual) 2021
4. The Interface between Science and Education Symposium, Storrs, CT 2018

Poster Abstract Reviewer

1. CRS Annual Meeting & Exposition 2020 - present
2. AAPS Annual Meeting & Exposition 2017 - present

Poster Forum Host

AAPS Annual Meeting & Exposition 2017

Services as Grant Application Reviewer/Panelist

1. NIH ZRG1 MCST-U (55) Panel	October 2024
2. Male Contraceptive Imitative 2024 Fellowship	September 2024
3. NIH DBTD Panel	June 2024
4. NIH ZRG1 MCST-U (55) Panel	March 2024
5. NIH ZCA1 SRB-P (J2) Panel	October 2023
6. NIH NIA AGCD-1 Panel	May 2023
7. Dutch Research Council (NWO)	February 2023
8. NIH Special Emphasis Panel: ZHL1 CSR-O (J1) 2	December 2022
9. NIH Special Emphasis Panel: ZRG1 AIDC-B (83)	July 2022
10. NIH PAR Panel: TTNCI IRCN U55 (ZRG1 IMST-U (55))	October 2021
11. NIH Special Review Panel (ZRG1 EMNR-S (55) R)	July 2021
12. NIH Special Review Panel (ZRG1 MDCN-C(50))	August 2020
13. NIH GDD (gene and drug delivery) Study Section review panel	February 2020
14. Dutch Research Council (NOW)	2020
15. Breast Cancer Now, UK	2019

External Thesis/Dissertation Reviewer

1. Ph.D. dissertation evaluation, University of South Australia	2023
2. Master thesis evaluation, University of South Australia	2021

Services as Editor, Editorial Board Member and Referee for Learned Journals to the Pharmaceutical and Related Sciences

Editorial Advisory Boards:

1. *Pharmaceutics (Drug Delivery and Controlled Release Section)* (MDPI)	2021 - present
2. *Frontiers in Drug Delivery-Oral Drug Delivery_Review Editor* (Frontiers)	2021 - present
3. *International Journal of Pharmaceutics* (Elsevier)	2016 - present

Scientific Advisor to the Editors

1. *Journal of Pharmaceutical Sciences* (Elsevier)	2020 - 2022

Guest Editor:

1. Special Issue "Particle Engineering for Drug Delivery Applications", *Pharmaceutics*	2022 - 2024
2. Special Issue "Quality by Design in Pharmaceuticals", *Pharmaceutics*	2022 - 2023
3. Special Issue "Particle Engineering for Drug Delivery Applications", *Pharmaceutics*	2020 - 2022
4. Special Issue "Advances in Drug Delivery Related Biosensors and Medical Devices", *International Journal of Pharmaceutics, 2018, 544(2)*	2017 - 2018

Ad-Hoc Journal Reviewer:

AAPS PharmSciTech; Acta Biomaterialia; Acta Pharmaceutica Sinica B; ACS Nano; ACS Biomaterials Science & Engineering; Advanced Drug Delivery Reviews; Biosensors and Bioelectronics; Colloids and Surfaces B: Biointerfaces; Drug Design, Development and Therapy; European Journal of Pharmaceutics and Biopharmaceutics; International Journal of Nanomedicine; International Journal of Pharmaceutics; Journal of Advanced Research; Journal of Controlled Release; Journal of Pharmacy and Pharmacology; Materials Chemistry and Physics; Nano Research; PLOS ONE; Pharmaceutics; Results in Pharma Sciences.

PROFESSIONAL MEMBERSHIPS

American Association of Colleges of Pharmacy (AACP)	2017 - present
Controlled Release Society (CRS)	2010 - present
American Association of Pharmaceutical Scientists (AAPS)	2006 - present